

STIC Search Results Feedback Form

EIC17000

Questions about the scope or the results of the search? Contact *the EIC searcher or contact:*

Kathleen Fuller, EIC 1700 Team Leader
571/272-2505 REMSEN 4B28

Voluntary Results Feedback Form

- I am an examiner in Workgroup: Example: 1713
- Relevant prior art **found**, search results used as follows:
 - 102 rejection
 - 103 rejection
 - Cited as being of interest.
 - Helped examiner better understand the invention.
 - Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- Foreign Patent(s)
- Non-Patent Literature
(journal articles, conference proceedings, new product announcements etc.)

- Relevant prior art **not found**:
 - Results verified the lack of relevant prior art (helped determine patentability).
 - Results were not useful in determining patentability or understanding the invention.

Comments:

Drop off or send completed forms to EIC1700 REMSEN 4B28

SEARCH REQUEST FORM**Scientific and Technical Information Center**

Requester's Full Name: Sin J. Lee Examiner #: 76060 Date: 3-9-2006
 Art Unit: 1752 Phone Number 302-1333 Serial Number: 101812,125
 Mail Box and Bldg/Room Location: 9D60 Results Format Preferred (circle): PAPER DISK E-MAIL
 (Rem.)

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc., if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

SCIENTIFIC REFERENCE BR
Sci & Tech Inf. Ctr.

Title of Invention: Plz. see B-6. MAR 10 REC'D

Inventors (please provide full names): Pat. & T.M. Office

Earliest Priority Filing Date:

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Plz. search for

a metal salt of

cry stalline, thermotropic polyacetylene

in which the crystalline Polyacetylene

have the structure ~~is~~ shown in cl. # 8.

STAFF USE ONLY		Type of Search	Vendors and cost where applicable
Searcher:		NA Sequence (#)	STN _____
Searcher Phone #:		AA Sequence (#)	Dialog _____
Searcher Location:		Structure (#)	Questel/Orbit _____
Date Searcher Picked Up:		Bibliographic	Dr. Link _____
Date Completed:		Litigation	Lexis/Nexis _____
Searcher Prep & Review Time:		Fulltext	Sequence Systems _____
Clerical Prep Time:		Patent Family	WWW/Internet _____
Online Time:		Other	Other (specify) _____

=> d his full

FILE 'LREGISTRY' ENTERED AT 09:26:33 ON 13 MAR 2006

L11 STRUCTURE
 L27 50 SEA SSS SAM L11
 L28 16978 SEA SSS FUL L11
 SAV L28 LEE125/A
 L29 2217 SEA ABB=ON PLU=ON L28 AND M/ELS

FILE 'HCAPLUS' ENTERED AT 13:19:57 ON 13 MAR 2006

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 L31 439812 SEA ABB=ON PLU=ON IMAG?
 L32 256630 SEA ABB=ON PLU=ON MAP?
 L33 381181 SEA ABB=ON PLU=ON LITHIUM OR LI
 L34 87820 SEA ABB=ON PLU=ON METAL (2A) SALT#
 L35 5 SEA ABB=ON PLU=ON L30 (L) L31
 L36 1 SEA ABB=ON PLU=ON L30 (L) L32
 L37 14 SEA ABB=ON PLU=ON L30 (L) L33
 L38 1 SEA ABB=ON PLU=ON L30 (L) L34
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 L40 4 SEA ABB=ON PLU=ON L30 AND IMAG? AND (LITHIUM OR LI OR
 (METAL (2A) SALT#))
 L41 2 SEA ABB=ON PLU=ON L30 AND MAP? AND (LITHIUM OR LI OR
 (METAL (2A) SALT#))
 L42 45 SEA ABB=ON PLU=ON L30 AND PHOTO?/SC,SX
 L43 6 SEA ABB=ON PLU=ON L30 AND IMAG? AND PHOTO?/SC,SX
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 L45 153 SEA ABB=ON PLU=ON L30 (L) L44
 L46 2 SEA ABB=ON PLU=ON L30 (L) L44 AND PHOTO?/SC,SX
 L47 4 SEA ABB=ON PLU=ON L30 AND L44 AND PHOTO?/SC,SX
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 L41 OR L43 OR L46 OR L47

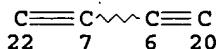
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FILE 'REGISTRY' ENTERED AT 14:11:46 ON 13 MAR 2006
 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
 PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
 COPYRIGHT (C) 2006 American Chemical Society (ACS)

=> d 148 que stat

L11 STR

17 O C---O @8	18 O C---N @10	19 O Ak~O~C---N @13 14 15 16	Ak @24	Cb @25	G4 26
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VAR G4=8/10/13/24/25

NODE ATTRIBUTES:

CONNECT IS E2 RC AT 13
 DEFAULT MLEVEL IS ATOM
 GGCAT IS MCY UNS AT 25
 DEFAULT ECLEVEL IS LIMITED
 ECOUNT IS M1-X4 C AT 13

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 18

STEREO ATTRIBUTES: NONE

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L46      2 SEA FILE=HCAPLUS ABB=ON PLU=ON L30 (L) L44 AND
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          PHOTO?/SC,SX
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          L38 OR L40 OR L41 OR L43 OR L46 OR L47
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USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

=> d 148 1-24 ibib abs hitstr hitind

L48 ANSWER 1 OF 24 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:583280 HCAPLUS
DOCUMENT NUMBER: 143:262751
TITLE: Gadolinium-Rhodamine Nanoparticles for Cell
Labeling and Tracking via Magnetic Resonance and
Optical Imaging
AUTHOR(S): Vuu, Kien; Xie, Jianwu; McDonald, Michael A.;
Bernardo, Marcelino; Hunter, Finie; Zhang,
Yantian; Li, King; Bednarski, Mark; Guccione,
Samira
CORPORATE SOURCE: National Institutes of Health Research Scholars
Program, Howard Hughes Medical Institute, Chevy
Chase, MD, 20815-6789, USA
SOURCE: Bioconjugate Chemistry (2005), 16(4), 995-999
CODEN: BCCHE8; ISSN: 1043-1802
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A novel dual-labeled nanoparticle for use in labeling and tracking
cells in vivo is described. The authors report the construction and

characterization of these gadolinium-rhodamine nanoparticles. These particles are constructed from lipid monomers with diacetylene bonds that are sonicated and photolyzed to form polymd. nanoparticles. Cells are efficiently labeled with these nanoparticles. The authors have inoculated labeled tumor cells s.c. into the flanks of C3H mice and have been able to image these labeled tumor cells via MRI and optical imaging. Furthermore, the labeled tumor cells can be visualized via fluorescent microscopy after tissue biopsy. The authors' results suggest that these nanoparticles could be used to track cells in vivo. This basic platform can be modified with different fluorophores and targeting agents for studying metastatic cell, stem cell, and immune cell trafficking among other applications.

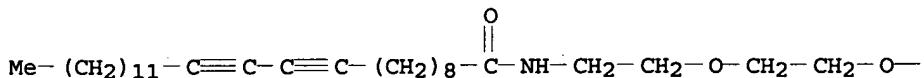
IT 302544-03-2

RL: RCT (Reactant); RACT (Reactant or reagent)
 (copolymn.; gadolinium-rhodamine polymeric nanoparticles for cell labeling and tracking via magnetic resonance and optical imaging)

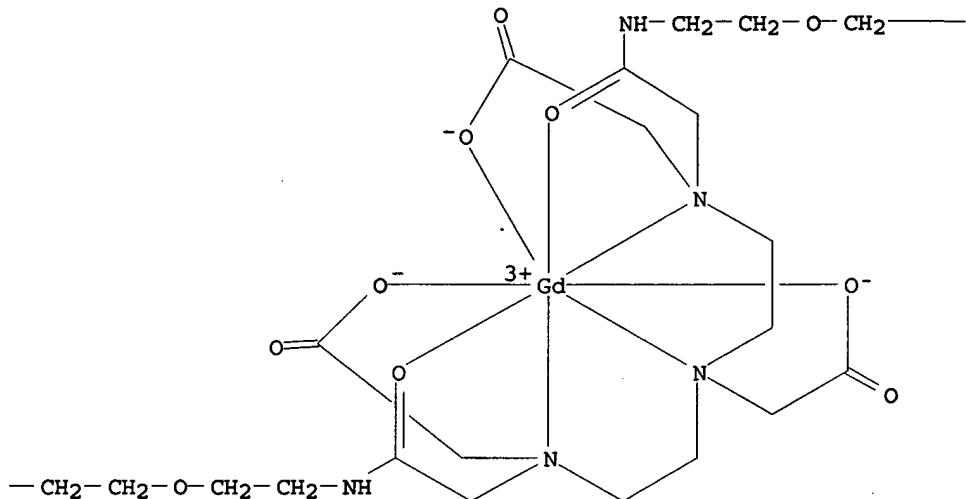
RN 302544-03-2 HCPLUS

CN Gadolinium, [6,9-bis[(carboxy- κ O)methyl]-11-(oxo- κ O)-25-oxo-3-[2-(oxo- κ O)-16-oxo-6,9,12-trioxa-3,15-diazatetraconta-25,27-diyn-1-yl]-15,18,21-trioxa-3,6,9,12,24-pentaazanonatetraconta-34,36-diynoato(3-) - κ N3, κ N6, κ N9, κ O1] - (9CI)
 (CA INDEX NAME)

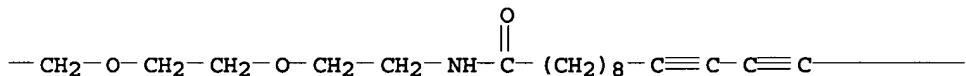
PAGE 1-A



PAGE 1-B



PAGE 1-C



PAGE 1-D

 $\text{---}(\text{CH}_2)_{11}-\text{Me}$

IT 863608-07-5

RL: BUU (Biological use, unclassified); DEV (Device component use);
 BIOL (Biological study); USES (Uses)
 (nanoparticles; gadolinium-rhodamine polymeric nanoparticles for
 cell labeling and tracking via magnetic resonance and optical
 imaging)

RN 863608-07-5 HCPLUS

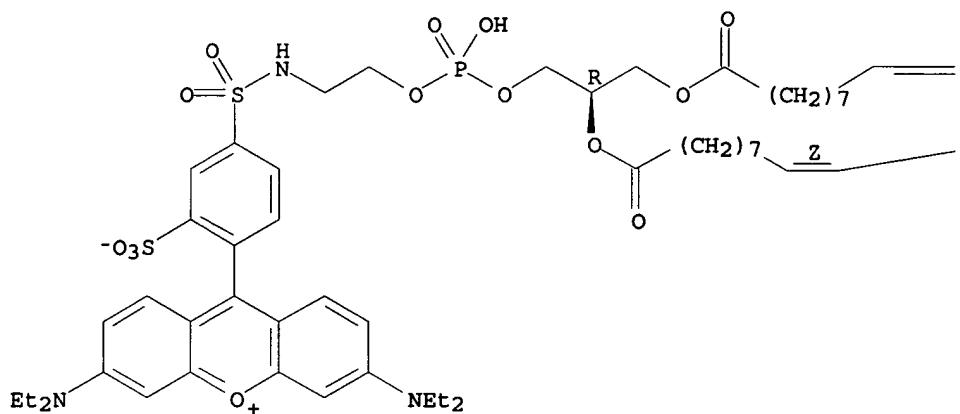
CN Gadolinium, [6,9-bis(carboxymethyl)-3-(2,16-dioxo-6,9,12-trioxa-3,15-diazatetraconta-25,27-diyn-1-yl)-11,25-dioxo-15,18,21-trioxa-3,6,9,12,24-pentaazanonatetraconta-33,35-diynoato(3-)-N3,N6,N9,O1,O6,O9]-, polymer with 3,6-bis(diethylamino)-9-[4-[[[(7R,18Z)-4-hydroxy-4-oxido-10-oxo-7-[(9Z)-1-oxo-9-octadecenyl]oxy]-3,5,9-trioxa-4-phosphahexacos-18-en-1-yl]amino]sulfonyl]-2-sulfophenyl]xanthylum inner salt, monoammonium salt, (7R)-4-hydroxy-N,N,N-trimethyl-9-oxo-7-[(1-oxohexadecyl)oxy]methyl]-3,5,8-trioxa-4-phosphahentriaconta-18,20-diyn-1-aminium inner salt, 4-oxide and N,N,N-trimethyl-2,3-bis[[[(9Z)-1-oxo-9-octadecenyl]oxy]-1-propanaminium chloride (9CI) (CA INDEX

NAME)

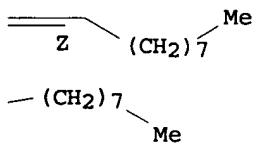
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CRN 384833-00-5
CMF C68 H106 N3 O14 P S2 . H3 NAbsolute stereochemistry.
Double bond geometry as shown.

PAGE 1-A

● NH₃

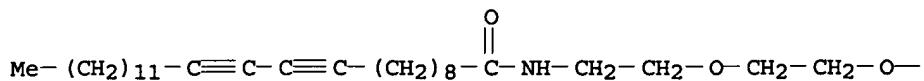
PAGE 1-B



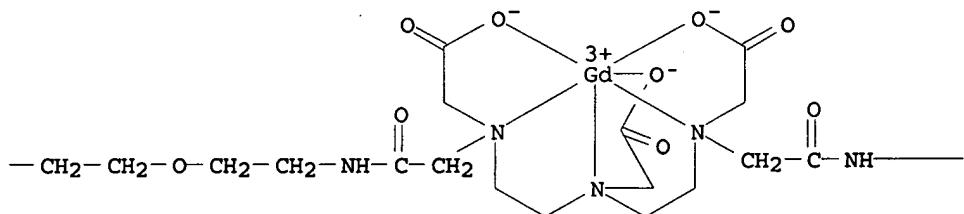
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CRN 164919-50-0
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CCI CCS

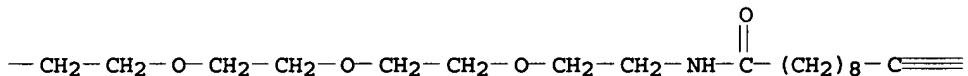
PAGE 1-A



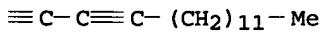
PAGE 1-B



PAGE 1-C



PAGE 1-D

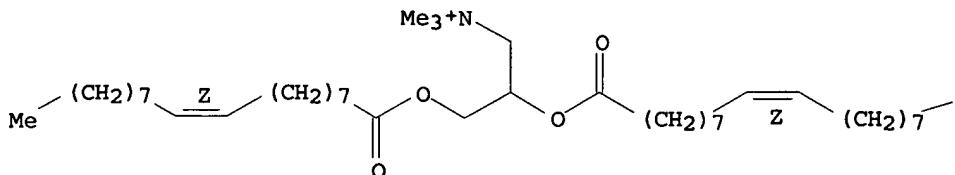


CM 3

CRN 132172-61-3
CMF C42 H80 N O4 . Cl

Double bond geometry as shown.

PAGE 1-A



C1 -

PAGE 1-B

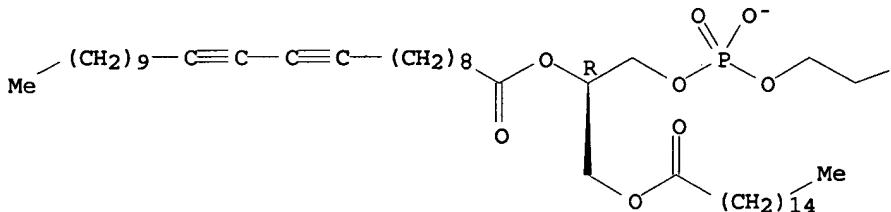
Me

CM 4

CRN 84271-00-1
CMF C47 H86 N 08 P

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

N^+Me_3

CC 9-4 (Biochemical Methods

Section cross-reference(s) : 8

IT 84271-00-1 132172-61-3, DOTAP 302544-03-2 384833-00-5

RL: RCT (Reactant); RACT (Reactant or reagent)

(copolymer.; gadolinium-rhodamine polymeric nanoparticles for cell labeling and tracking via magnetic resonance and optical imaging)

Engag,
IT 863608-07-5

RL: BUU (Biological use, unclassified); DEV (Device component use);

BIOL (Biological study); USES (Uses)

(nanoparticles; gadolinium-rhodamine polymeric nanoparticles for
cell labeling and tracking via magnetic resonance and optical
imaging)

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN
THE RE FORMAT

L48 ANSWER 2 OF 24 HCPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:824992 HCPLUS
DOCUMENT NUMBER: 141:339093
TITLE: Lithium salt of polyacetylene as
radiation sensitive filaments and preparation
and use thereof
INVENTOR(S): Anyumba, Janette; Lewis, David F.; Shih,
Hsiao-Yi; Yu, Xiang
PATENT ASSIGNEE(S): Isp Investments Inc., USA
SOURCE: U.S. Pat. Appl. Publ., 10 pp., Cont.-in-part of
U.S. Provisional Ser. No. 459,559.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

*Same Inventor
entity*

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004197700	A1	20041007	US 2004-789007	200402 27
CA 2520790	AA	20041104	CA 2004-2520790	200403 10
WO 2004095065	A2	20041104	WO 2004-US7273	200403 10
WO 2004095065	A3	20050728		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1614002	A2	20060111	EP 2004-719225	200403 10
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WO 2004094967	A2	20041104	WO 2004-US8895	200403 24
WO 2004094967	A3	20050602		
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GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP,
 KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
 MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD,
 SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ,
 VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
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 ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.:	US 2003-459559P	P
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	WO 2004-US7273	W
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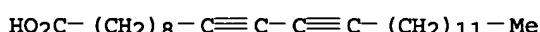
AB This invention relates to photochromic filaments composed of the Li salt of a conjugated, polymerizable polyacetylene having a carboxylic acid or carboxylate terminal group wherein the length to width ratio of the filaments is between .apprx.5000:1 and .apprx.5:1 and the av. length of the filament is up to .apprx.5 cm. The invention also pertains to the use of the salts in maximized radiation sensitivity for imaging, radiation dose measurement or mapping and detection of radiation fields.

IT 66990-36-1P, Pentacosa-10,12-diynoic acid, lithium salt

RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (lithium salt of polyacetylene as radiation sensitive filaments and prepn. and use thereof)

RN 66990-36-1 HCAPLUS

CN 10,12-Pentacosadiynoic acid, lithium salt (9CI) (CA INDEX NAME)



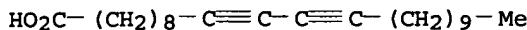
● Li

IT 67360-63-8, Tricos-10,12-diynoic acid, lithium salt 200412-03-9, Eicos-5,7-diynoic acid, lithium salt 769952-16-1

RL: TEM (Technical or engineered material use); USES (Uses)
 (lithium salt of polyacetylene as radiation sensitive filaments and prepn. and use thereof)

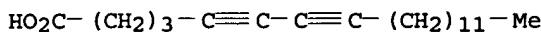
RN 67360-63-8 HCAPLUS

CN 10,12-Tricosadiynoic acid, lithium salt (9CI) (CA INDEX NAME)



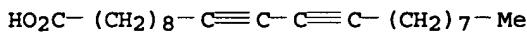
● Li

RN 200412-03-9 HCAPLUS
 CN 5,7-Eicosadiynoic acid, lithium salt (9CI) (CA INDEX NAME)



● Li

RN 769952-16-1 HCAPLUS
 CN 10,12-Heneicosadiynoic acid, lithium salt (9CI) (CA INDEX NAME)



● Li

IC ICM G03C001-76
 INCL 430270100
 CC 71-7 (Nuclear Technology)
 Section cross-reference(s): 74
 ST lithium salt polyacetylene photochromic filament
 radiochromic dosimeter
 IT Radiography
 (emulsions; lithium salt of polyacetylene as radiation
 sensitive filaments and prepn. and use thereof)
 IT Filaments
 Photochromism
 (lithium salt of polyacetylene as radiation sensitive
 filaments and prepn. and use thereof)
 IT Gelatins, uses
 RL: NUU (Other use, unclassified); USES (Uses)
 (lithium salt of polyacetylene as radiation sensitive
 filaments and prepn. and use thereof)
 IT Radiation detectors
 (radiochromic filaments; lithium salt of polyacetylene
 as radiation sensitive filaments and prepn. and use thereof)
 IT Dosimeters
 (radiochromic; lithium salt of polyacetylene as
 radiation sensitive filaments and prepn. and use thereof)
 IT Photographic emulsions
 (radiog.; lithium salt of polyacetylene as radiation
 sensitive filaments and prepn. and use thereof)
 IT 554-13-2, Lithium carbonate 7447-41-8, Lithium
 chloride, uses 7787-69-1, Cesium bromide 7790-69-4,
 Lithium nitrate 10377-48-7, Lithium sulfate
 106716-27-2, Amphosol CA
 RL: MOA (Modifier or additive use); USES (Uses)
 (lithium salt of polyacetylene as radiation sensitive

- IT filaments and prepn. and use thereof)
 IT 9002-18-0, Agar agar 11138-66-2, Xanthan gum
 RL: NUU (Other use, unclassified); USES (Uses)
 (lithium salt of polyacetylene as radiation sensitive
 filaments and prepn. and use thereof)
- IT 769952-15-0P
 RL: PNU (Preparation, unclassified); RCT (Reactant); PREP
 (Preparation); RACT (Reactant or reagent)
 (lithium salt of polyacetylene as radiation sensitive
 filaments and prepn. and use thereof)
- IT 66990-36-1P, Pentacosa-10,12-diynoic acid, lithium
 salt
 RL: PNU (Preparation, unclassified); TEM (Technical or engineered
 material use); PREP (Preparation); USES (Uses)
 (lithium salt of polyacetylene as radiation sensitive
 filaments and prepn. and use thereof)
- IT 77-98-5, Tetraethyl ammonium hydroxide 546-89-4, Lithium
 acetate 66990-32-7, Pentacosa-10,12-diynoic acid
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (lithium salt of polyacetylene as radiation sensitive
 filaments and prepn. and use thereof)
- IT 67360-63-8, Tricos-10,12-diynoic acid, lithium
 salt 200412-03-9, Eicos-5,7-diynoic acid, lithium
 salt 769952-16-1
 RL: TEM (Technical or engineered material use); USES (Uses)
 (lithium salt of polyacetylene as radiation sensitive
 filaments and prepn. and use thereof)

L48 ANSWER 3 OF 24 HCPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2004:824983 HCPLUS
 DOCUMENT NUMBER: 141:340546
 TITLE: Composition and method for 3-dimensional
 mapping or radiation dose
 INVENTOR(S): Anyumba, Janette; Lewis, David F.; Shih,
 Hsiao-yi; Yu, Xiang
 PATENT ASSIGNEE(S): Isp Investments Inc., USA
 SOURCE: U.S. Pat. Appl. Publ., 6 pp.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004197684	A1	20041007	US 2004-812125	200403 29
WO 2004094967	A2	20041104	WO 2004-US8895	200403 24

WO 2004094967 A3 20050602
 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA,
 CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
 GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP,
 KR, KZ, LC, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
 MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD,
 SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ,
 VC, VN, YU, ZA, ZM, ZW
 RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
 AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE,

DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT,
 RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,
 ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.:

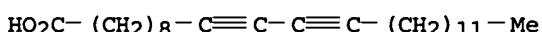
US 2003-459559P

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200304
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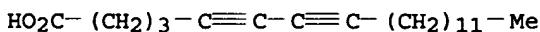
AB In accordance with this invention, there is provided a method of imaging, measuring and displaying a 3-dimensional dose distribution of an energy field in a translucent 3-dimensional object. The method comprises steps of: applying an energy field to the object such that the optical properties are changed upon receipt of the energy; optically scanning the object at various positions and angles to provide a series of 2-dimensional representations of the object; detecting the measuring light projection data indicative of optical changes in the object; calibrating the optical change in the object to the dose of the energy corresponding to each position scan; mapping the dose of the energy in the object and visually recording the summation of said 2-dimensional representations on an image display receiver. The method uses radiation activated metal salt of a cryst., thermochromic polyacetylene having a conjugated structure uniformly distributed in a rigid or high d. semi-solid matrix by a color alteration due to polymn. of the activated polyacetylene to provide a permanent, 3-dimensional image of the object in high spatial resoln. The invention further provides image display receivers and radiation sensitive materials.

IT 66990-36-1P, Lithium pentacosa-10,12-diynoate
 200412-03-9P, Lithium eicos-5,7-diynoate
 RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (compn. and method for 3-dimensional mapping or
 radiation dose)

RN 66990-36-1 HCPLUS**CN** 10,12-Pentacosadiynoic acid, lithium salt (9CI) (CA INDEX NAME)

● Li

RN 200412-03-9 HCPLUS
CN 5,7-Eicosadiynoic acid, lithium salt (9CI) (CA INDEX NAME)



● Li

IC ICM G03C001-73
 ICS G03C005-00
INCL 430030000; 430270100
CC 74-13 (Radiation Chemistry, Photochemistry, and
 Photographic and Other Reprographic Processes)
ST mapping 3D radiation dose compn method image

display
 IT Optical imaging devices
 Radiation detectors
 (compn. and method for 3-dimensional mapping or
 radiation dose)
 IT Gelatins, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (crosslinked; compn. and method for 3-dimensional mapping
 or radiation dose)
 IT 66990-36-1P, Lithium pentacosa-10,12-diyneate
 200412-03-9P, Lithium eicosa-5,7-diyneate
 769952-15-0P 769953-02-8P
 RL: PNU (Preparation, unclassified); TEM (Technical or engineered
 material use); PREP (Preparation); USES (Uses)
 (compn. and method for 3-dimensional mapping or
 radiation dose)
 IT 66990-32-7, Pentacosa-10,12-diyneic acid 69288-29-5,
 Eicosa-5,7-diyneic acid
 RL: TEM (Technical or engineered material use); USES (Uses)
 (compn. and method for 3-dimensional mapping or
 radiation dose)

L48 ANSWER 4 OF 24 HCPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2003:532140 HCPLUS
 DOCUMENT NUMBER: 139:106450
 TITLE: Targeted multivalent macromolecules
 INVENTOR(S): Wartchow, Charles Aaron; Dechene, Neal Edward;
 Pease, John S.; Shen, Zhimin; Trulson, Julie;
 Bednarski, Mark David; Danthi, S. Narasimhan;
 Zhang, Michael; Choi, Hoyul Steven
 PATENT ASSIGNEE(S): Targesome, Inc., USA
 SOURCE: U.S. Pat. Appl. Publ., 71 pp., Cont.-in-part of
 U.S. Ser. No. 976,254.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 9
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003129223	A1	20030710	US 2002-158777	200205 30
US 2002071843	A1	20020613	US 2001-976254	200110 11
ZA 2003009924	A	20050622	ZA 2003-9924	200312 22
PRIORITY APPLN. INFO.:			US 2000-239684P	P 200010 11
			US 2001-294309P	P 200105 30
			US 2001-309104P	P 200107 31

US 2001-312435P P
 200108
 15

US 2001-976254 A2
 200110
 11

AB Targeted therapeutic agents, comprising a linking carrier, a therapeutic entity assocd. with the linking carrier, and at least one targeting entity are provided, as well as methods for their prepn. and use. A targeted therapeutic agent is selected from matrix metalloprotease inhibitors, analgesics, aggrecanase inhibitors, alkylating agents, topoisomerase inhibitors, estrogens, androgens, interferons, intercalating agents, kinase modulators, etc. The linking carrier comprises a phosphatidylcholine and is selected from liposomes and a polymd. vesicle. A targeting entity targets a lipid construct to a target selected from a cell surface target, an intracellular target, and an extracellular matrix component. The targeting entity has, e.g., a vascular or tumor cell target selected from chemokine receptors, matrix metalloproteases, integrins, or prostate-specific membrane antigens. For example, integrin-targeted 90Y-labeled peptidomimetic vesicle complexes (IA-NP-Y90) at 5 μ Ci/g reduced tumor growth in a melanoma mouse model with av. normalized tumor vol. less than half the vol. in the buffer-treated animals. In addn., the av. tumor vol. quadrupling time (TVQT) for tumor treated with IA-NP-Y90 was 15.0 days compared to 6.4 days for tumors treated with buffer.

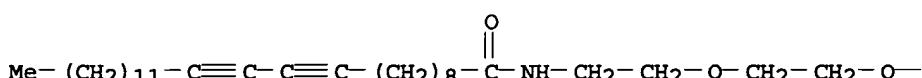
IT 477274-38-7DP, polymer contg.

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (paramagnetic nanoparticles contg.; prepn. of targeted multivalent macromols. for therapy, imaging and diagnosis of cancer)

RN 477274-38-7 HCAPLUS

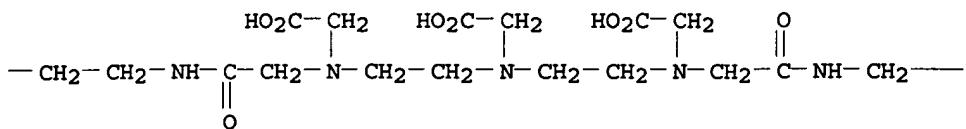
CN 15,18-Dioxa-3,6,9,12,21-pentaazahexatetraconta-31,33-dynoic acid, 6,9-bis(carboxymethyl)-3-(2,13-dioxo-6,9-dioxa-3,12-diazaheptatriaconta-22,24-diyn-1-yl)-11,22-dioxo-, trisodium salt (9CI) (CA INDEX NAME)

PAGE 1-A

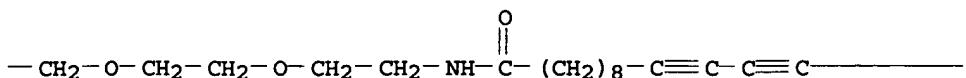


●3 Na

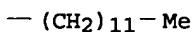
PAGE 1-B



PAGE 1-C



PAGE 1-D



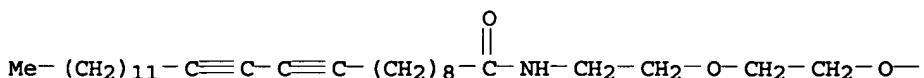
IT 477274-38-7

RL: RCT (Reactant); RACT (Reactant or reagent)
 (prepn. of targeted multivalent macromols. for therapy,
 imaging and diagnosis of cancer)

RN 477274-38-7 HCAPLUS

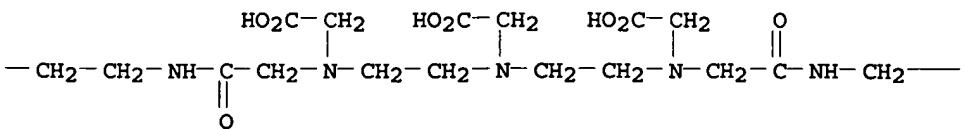
CN 15,18-Dioxa-3,6,9,12,21-pentaazahexatetraconta-31,33-diynoic acid,
 6,9-bis(carboxymethyl)-3-(2,13-dioxo-6,9-dioxa-3,12-
 diazaheptatriaconta-22,24-diyn-1-yl)-11,22-dioxo-, trisodium salt
 (9CI) (CA INDEX NAME)

PAGE 1-A

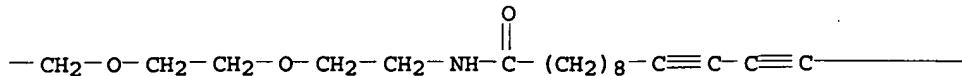


●3 Na

PAGE 1-B



PAGE 1-C



PAGE 1-D

 $\text{---(CH}_2\text{)}_{11}\text{---Me}$

IC ICM A61K039-395
 ICS A61K009-127
 INCL 424450000; 424146100; 424178100
 CC 63-6 (Pharmaceuticals)
 Section cross-reference(s): 1, 8, 15
 IT 75898-25-8DP, polymer contg. 477274-37-6DP, polymer contg.
 477274-38-7DP, polymer contg. 477274-39-8DP, polymer
 contg.
 RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL
 (Biological study); PREP (Preparation); USES (Uses)
 (paramagnetic nanoparticles contg.; prepn. of targeted
 multivalent macromols. for therapy, imaging and
 diagnosis of cancer)
 IT 107-35-7, Taurine 108-30-5, Succinic anhydride, reactions
 929-59-9, 1,8-Diamino-3,6-dioxaoctane 6066-82-6,
 N-Hydroxysuccinimide 25322-68-3, Polyethylene glycol 66990-30-5,
 10,12-Tricosadiynoic acid 66990-32-7, 10,12-Pentacosadiynoic acid
 77087-60-6 164919-52-2 174665-28-2 477274-38-7
 477274-39-8
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (prepn. of targeted multivalent macromols. for therapy,
 imaging and diagnosis of cancer)

L48 ANSWER 5 OF 24 HCPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2002:496035 HCPLUS
 DOCUMENT NUMBER: 137:311010
 TITLE: Synthesis and characterization of
 trans-phenylethynylalkynyl adducts on a
 tetraanilinopyridinato-diruthenium(III) core
 AUTHOR(S): Xu, Guolin; Ren, Tong
 CORPORATE SOURCE: Department of Chemistry and Center for
 Supramolecular Science, University of Miami,
 Coral Gables, FL, 249118 33124-0431, USA
 SOURCE: Journal of Organometallic Chemistry (2002),
 655(1-2), 239-243
 CODEN: JORCAI; ISSN: 0022-328X
 PUBLISHER: Elsevier Science B.V.
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 137:311010
 AB Treating Ru₂(ap)₄Cl (ap = anilinopyridinato) with large excess of
 LiC₂Ph gave previously unidentified trans-Ru₂(ap)₄(C₂Ph)₂ (2a) where
 ap is 2-anilinopyridinate. Reactions between Ru₂(ap)₄(C₂X) and
 LiC₂Ph in excess yielded similar bis-alkynyl compds.

trans-(PhC₂)₂[Ru₂(ap)₄](C₂X) (X = SiMe₃, 2b, C₂SiMe₃, 2c). Also reported are electrochem. and spectroscopic characterizations of compds. 2a-c and x-ray structural anal. of compds. 2a and 2b.

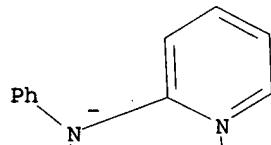
IT 347841-72-9

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction with lithium phenylacetylide)

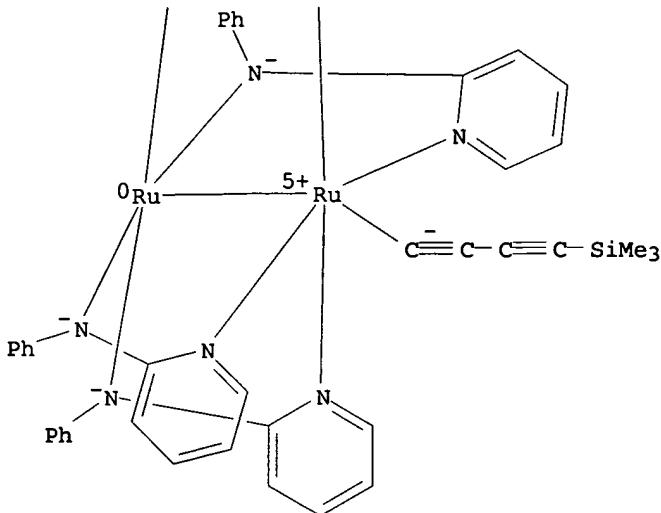
RN 347841-72-9 HCAPLUS

CN Ruthenium, tetrakis[μ-(N-phenyl-2-pyridinaminato-κN₁:κN₂)][4-(trimethylsilyl)-1,3-butadiynyl]di-, (Ru-Ru)
(9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



CC 29-13 (Organometallic and Organometalloidal Compounds)

Section cross-reference(s): 72, 75

IT 94089-99-3 265317-41-7 347841-72-9

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction with lithium phenylacetylide)REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

L48 ANSWER 6 OF 24 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:106553 HCAPLUS

DOCUMENT NUMBER: 136:325675

TITLE: Thermal and Photochemical Silicon-Carbon Bond
Activation in Donor-StabilizedPlatinum(0)-Alkyne Complexes
AUTHOR(S): Mueller, Christian; Lachicotte, Rene J.; Jones,
William D.CORPORATE SOURCE: Department of Chemistry, University of
Rochester, Rochester, NY, 14627, USASOURCE: Organometallics (2002), 21(6), 1190-1196
CODEN: ORGND7; ISSN: 0276-7333

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

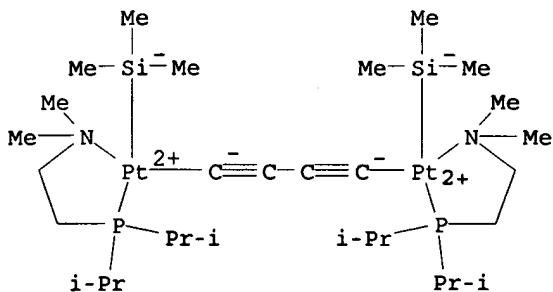
LANGUAGE: English

OTHER SOURCE(S): CASREACT 136:325675

AB Reaction of Pt(COD)₂ with Me₃SiC.tplbond.CPh and a bidentate chelating ligand leads to the formation of the corresponding donor-stabilized Pt- η^2 -alkyne complexes (PN)Pt(η^2 -Me₃SiC.tplbond.CPh) (1) and (dcpe)Pt(η^2 -Me₃SiC.tplbond.CPh) (3) (PN = (diisopropylphosphinodimethylamino)ethane; dcpe = bis(dicyclohexylphosphino)ethane). The nitrogen donor ligand in 1 facilitates the cleavage of the Si-C(sp) bond, and the Pt(II) complex (PN)Pt(SiMe₃)(C.tplbond.CPh) (2) is formed at room temp. In contrast, the bisphosphino-substituted compd. 3 was isolated as a thermally robust Pt(0) complex. However, the silicon-carbon bond in the latter compd. can be photochem. activated, and the oxidative addn. product (dcpe)Pt(SiMe₃)(C.tplbond.CPh) (4) is generated. Both Si-C(sp) bonds in Me₃Si-C.tplbond.C-C.tplbond.C-SiMe₃ were thermally

activated by a (PN)Pt fragment to afford the dinuclear Pt(II) species (PN)Pt(SiMe₃)-C.tplbond.C-C.tplbond.C-Pt(SiMe₃)(PN) (6).

IT 412347-26-3P
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
 (prepn. and crystal structure)
 RN 412347-26-3 HCAPLUS
 CN Platinum, bis[2-[bis(1-methylethyl)phosphino- κ P]-N,N-dimethylethanamine- κ N]- μ -1,3-butadiyne-1,4-diylbis(trimethylsilyl)di-, stereoisomer (9CI) (CA INDEX NAME)



CC 29-13 (Organometallic and Organometalloidal Compounds)
 Section cross-reference(s): 74, 75
 ST silicon carbon bond activation thermal platinum alkyne complex;
 crystal mol structure platinum isopropylphosphinodimethylami noethane silylalkyne complex prepn; platinum cyclohexylphosphinoethane silylalkyne complex prepn crystal mol structure; carbon silicon bond activation photochem platinum alkyne complex

IT Crystal structure
 Molecular structure
 (of platinum alkyne complexes)
 IT 412347-22-9P 412347-24-1P 412347-26-3P
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
 (prepn. and crystal structure)
 IT 412347-27-4P
 RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation);
 PREP (Preparation); RACT (Reactant or reagent)
 (prepn., crystal structure, and substitution reaction
 with phenyltrimethylsilylacetylene)

REFERENCE COUNT: 54 THERE ARE 54 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L48 ANSWER 7 OF 24 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2002:23034 HCAPLUS
 DOCUMENT NUMBER: 136:263663
 TITLE: Surface molecular structure determination of lithium salt of 10,12-nonacosadiynoic acid monomer and polymer Langmuir-Blodgett films by scanning force microscopy compared to electron diffraction results
 AUTHOR(S): Tseng, Scott C.; Lando, Jerome B.; Mann, J.
 Adin, Jr.
 CORPORATE SOURCE: Polymer Microdevice Laboratory, Department of Chemical Engineering and Macromolecular Science, Case Western Reserve University, Cleveland, OH,

44106, USA

SOURCE: Journal of Macromolecular Science, Pure and
 Applied Chemistry (2001), A38(12), 1393-1404
 CODEN: JSPCE6; ISSN: 1060-1325

PUBLISHER: Marcel Dekker, Inc.
 DOCUMENT TYPE: Journal
 LANGUAGE: English

AB Langmuir-Blodgett films of lithium salts of 10,12-nonacosadiynoic acid monomer (Li/16-8 DA) and polymer (Li/16-8 PDA) were characterized by scanning force microscopy (SFM or AFM) to study their surface mol. structure. Based on anal. of these images, a two-dimensional oblique unit mesh is assigned for Li/16-8 DA monomer LB film with unit mesh parameter $c=0.549\pm0.040$ nm and $b=0.541\pm0.060$ nm with an angle of 113°. A hexagonal unit mesh is assigned for Li/16-8 PDA with unit mesh parameter $c=0.497\pm0.052$ nm and $b=0.497\pm0.060$ nm. We then report the comparison of two-dimensional, fast Fourier transform (FFT) of SFM images to the electron diffraction images. From the viewpoint of a three-dimensional structure projected onto a plane, centered rectangular nets can be assigned for both Li/16-8 DA and Li/16-8 PDA. The monomer unit cell parameters are $c=0.460\pm0.040$ nm and $b=1.020\pm0.060$ nm. The polymer cell parameters are $c=0.485\pm0.080$ nm and $b=0.820\pm0.010$ nm. The correlation between the two different methods of surface structure detn. is excellent. However, care must be taken in assigning the unit net (two-dimensional representation) and the projected unit cell (three-dimensional) vectors.

IT 75862-63-4, 10,12-Nonacosadiynoic acid, lithium salt, homopolymer

RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)
 (surface mol. structure detn. of 10,12-nonacosadiynoic acid lithium salt LB films by scanning force microscopy)

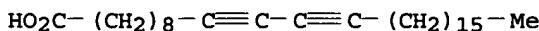
RN 75862-63-4 HCPLUS

CN 10,12-Nonacosadiynoic acid, lithium salt, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 70393-92-9

CMF C29 H50 O2 . Li



● Li

CC 36-2 (Physical Properties of Synthetic High Polymers)
 ST nonacosadiynoic acid lithium salt LB film surface
 structure detn; scanning force microscopy LB film surface structure
 detn
 IT Atomic force microscopes
 (for surface mol. structure detn. of 10,12-nonacosadiynoic acid
 lithium salt LB films)
 IT Surface roughness
 Surface structure
 (of 10,12-nonacosadiynoic acid lithium salt LB films)
 IT Creep

Langmuir-Blodgett films
 Surface pressure-area isotherms
 (surface mol. structure detn. of 10,12-nonacosadiynoic acid
 lithium salt LB films by scanning force microscopy)
IT 75862-63-4, 10,12-Nonacosadiynoic acid, lithium
 salt, homopolymer
 RL: CPS (Chemical process); PEP (Physical, engineering or chemical
 process); PRP (Properties); PROC (Process)
 (surface mol. structure detn. of 10,12-nonacosadiynoic acid
 lithium salt LB films by scanning force microscopy)

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE
 FOR THIS RECORD. ALL CITATIONS AVAILABLE
 IN THE RE FORMAT

L48 ANSWER 8 OF 24 HCPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:352341 HCPLUS

DOCUMENT NUMBER: 133:120379

TITLE: Exploratory Studies on the Synthesis of
 Unsymmetrically Substituted Diacetylenes Bearing
 Trialkoxsilyl Groups and Development of a
 Method for the Preparation of
 1-Lithio-4-(2,8,9-trioxa-5-aza-1-
 silabicyclo[3.3.3]undecanyl)-1,3-butadiyne:
 Synthetic and Mechanistic Aspects

AUTHOR(S): Brunel, Luc; Chaplain, Gerald; Dutremez, Sylvain
 G.; Guerin, Christian; Henner, Bernard J. L.;
 Tomberli, Veronique

CORPORATE SOURCE: Laboratoire Chimie Moleculaire et Organisation
 du Solide, Universite Montpellier II,
 Montpellier, 34095, Fr.

SOURCE: Organometallics (2000), 19(13), 2516-2525
 CODEN: ORGND7; ISSN: 0276-7333

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 133:120379

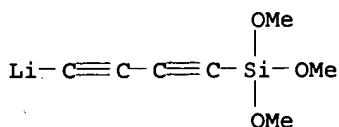
AB (Z)-CH₃OCH:CHC.tplbond.CSi(OCH₃)₃ (2), ((Z)-
 CH₃OCH:CHC.tplbond.C)2Si(OCH₃)₂ (5), and (Z)-
 CH₃OCH:CHC.tplbond.CSi(OCHMe₂)₃ (16) were synthesized from
 (Z)-CH₃OCH:CHC.tplbond.CH (1). Enynes 2 and 16 were subjected to a
 deprotonation-elimination-deprotonation sequence with 2 equiv of Li
 diisopropylamide (LDA) in THF and the expected intermediates
 (RO)3SiC.tplbond.CC.tplbond.CLi (R = CH₃, CHMe₂) allowed to react
 with R'3SiCl (R' = CH₃, C₆H₅) to produce the unsym. butadiynes
 (RO)3SiC.tplbond.CC.tplbond.CSiR'3. Sym. butadiynes
 R'3SiC.tplbond.CC.tplbond.CSiR'3 were obtained instead of the
 expected unsym. ones due to cleavage of the Csp-Si(OR)₃ bond by
 CH₃OLi formed in situ. Cleavage of the latter bond can be avoided
 by using a silatrane moiety in place of the trialkoxsilyl group.
 Thus, Me₃SiC.tplbond.CC.tplbond.CSi(OCH₂CH₂)₃N (26a) and
 Ph₃SiC.tplbond.CC.tplbond.CSi(OCH₂CH₂)₃N (26b) were obtained in 61%
 and 45% yield, resp., upon subjecting (Z)-
 CH₃OCH:CHC.tplbond.CSi(OCH₂CH₂)₃N (20) to a deprotonation-
 elimination-metalation sequence with 2 equiv of LDA followed by
 quenching of the intermediate Li compd.
 LiC.tplbond.CC.tplbond.CSi(OCH₂CH₂)₃N (25) with Me₃SiCl and Ph₃SiCl.
 The deprotonation-elimination-metalation sequence applied to 20 is
 best carried out in pyridine, and the role of pyridine in this
 reaction is discussed.

IT 284019-61-0, (4-(Trimethoxysilyl)-1,3-butadiynyl)

lithium

RL: RCT (Reactant); RACT (Reactant or reagent)

RN (attack of lithium methoxide on)
RN 284019-61-0 HCAPLUS
CN Lithium, [4-(trimethoxysilyl)-1,3-butadiynyl]- (9CI) (CA INDEX
NAME)



CC 29-6 (Organometallic and Organometalloidal Compounds)
IT 284019-61-0, (4-(Trimethoxysilyl)-1,3-butadiynyl)

lithium

RL: RCT (Reactant); RACT (Reactant or reagent)
(attack of lithium methoxide on)

REFERENCE COUNT: 80 THERE ARE 80 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

L48 ANSWER 9 OF 24 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1999:639833 HCAPLUS

DOCUMENT NUMBER: 131:356493

TITLE: STM images of individual porphyrin molecules on
Cu(100) and Cu(111) surfaces

AUTHOR(S): Bampas, Nick; Woodburn, Charles N.; Welland,
Mark E.; Sanders, Jeremy K. M.

CORPORATE SOURCE: Cambridge Centre for Molecular Recognition,
University Chemical Laboratory, Cambridge,
CB21EW, UK

SOURCE: Angewandte Chemie, International Edition (1999),
38(18), 2780-2783

PUBLISHER: CODEN: ACIEF5; ISSN: 1433-7851
Wiley-VCH Verlag GmbH

DOCUMENT TYPE: Journal

LANGUAGE: English

AB STM images of a meta-substituted zinc porphyrin deriv. mol. as well
as of its linear dimer, cyclic dimer, and cyclic trimer on Cu(111)
and Cu(100) substrates were obtained. The mols. were vapor
deposited in vacuum. The mechanism behind image contrast is
discussed.

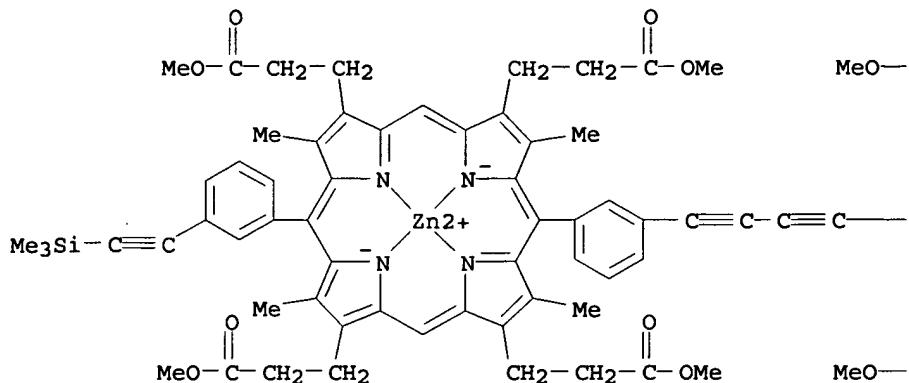
IT 169967-48-0

RL: PEP (Physical, engineering or chemical process); PRP
(Properties); PROC (Process)
(STM images of individual porphyrin mols. on Cu(100)
and Cu(111) surfaces)

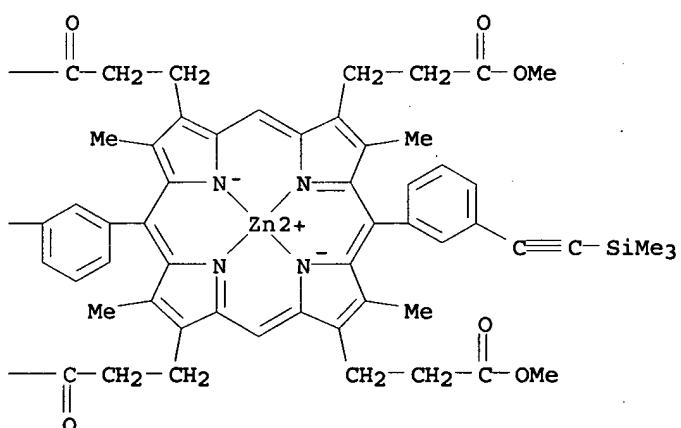
RN 169967-48-0 HCAPLUS

CN Zinc, μ -[[octamethyl 5,5'-(1,3-butadiyne-1,4-diyldi-3,1-
phenylene)bis[3,7,13,17-tetramethyl-15-[3-
[(trimethylsilyl)ethynyl]phenyl]-21H,23H-porphine-2,8,12,18-
tetrapropanoato- κ N21, κ N22, κ N23, κ N24]](4-
)])di- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



CC 66-3 (Surface Chemistry and Colloids)

IT 130829-46-8 130829-47-9 160895-41-0 169967-48-0

RL: PEP (Physical, engineering or chemical process); PRP
(Properties); PROC (Process)(STM images of individual porphyrin mols. on Cu(100)
and Cu(111) surfaces)REFERENCE COUNT: 48 THERE ARE 48 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

L48 ANSWER 10 OF 24 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1999:559020 HCAPLUS

DOCUMENT NUMBER: 132:166877

TITLE: Surface molecular structure of
poly(10,12-nonacosadiynoic acid)
Langmuir-Blodgett filmsAUTHOR(S): Tseng, Scott C. J.; Mann, Jay A.; Bai, Zongwu;
Tan, Seng C.; Lando, Jerome B.CORPORATE SOURCE: Wright Materials Research Co., Dayton, OH, USA
SOURCE: Polymer Preprints (American Chemical Society,

Division of Polymer Chemistry) (1999), 40(2),
703-704

CODEN: ACPPAY; ISSN: 0032-3934

PUBLISHER: American Chemical Society, Division of Polymer Chemistry

DOCUMENT TYPE: Journal

LANGUAGE: English

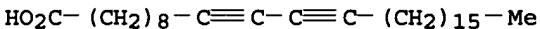
AB Langmuir-Blodgett films of lithium salts of 10,12-nonacosadiynoic acid monomer and poly(10,12-nonacosadiynoic acid) were characterized by at. force microscopy to study their surface mol. structure. Based on direct observations, an oblique unit mesh is assigned for the monomer film. A hexagonal unit mesh is assigned for the polymer film.

IT 70393-92-9, 10,12-Nonacosadiynoic acid, lithium salt

RL: PRP (Properties)
(surface mol. structure of Langmuir-Blodgett films)

RN 70393-92-9 HCPLUS

CN 10,12-Nonacosadiynoic acid, lithium salt (9CI) (CA INDEX NAME)



● Li

CC 36-5 (Physical Properties of Synthetic High Polymers)

IT 70393-92-9, 10,12-Nonacosadiynoic acid, lithium salt 86168-68-5

RL: PRP (Properties)
(surface mol. structure of Langmuir-Blodgett films)

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L48 ANSWER 11 OF 24 HCPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1999:379765 HCPLUS

DOCUMENT NUMBER: 131:130108

TITLE: A synthetic approach to all-carbon molecular rods with organometallic terminals

AUTHOR(S): Hayashi, Yukiko; Osawa, Masahisa; Wakatsuki, Yasuo

CORPORATE SOURCE: The Institute of Physical and Chemical Research (RIKEN), Wako, 351-0198, Japan

SOURCE: Hyper-Structured Molecules I: Chemistry, Physics and Applications, [International Forum on Hyper-Structured Molecules], 1st, Kusatsu, Japan, Nov. 4-6, 1996 (1999), Meeting Date 1996, 35-42. Editor(s): Sasabe, Hiroyuki. Gordon & Breach: Amsterdam, Neth.

CODEN: 67TFAV

DOCUMENT TYPE: Conference

LANGUAGE: English

OTHER SOURCE(S): CASREACT 131:130108

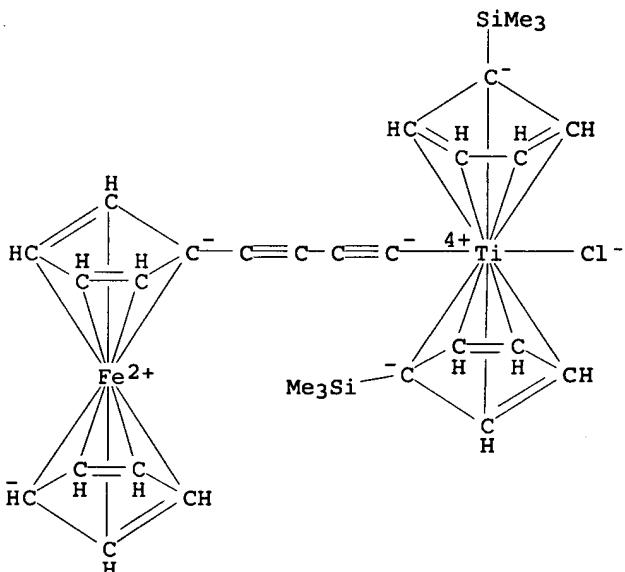
AB The authors present the synthesis of various bis(monoyno)-, (monoyno)(diyne)-, and bis(diyne)-titanocenes with ferrocenyl and ruthenocenyl terminal groups and also the coupling reaction of the two alkynyl moieties induced by electrochem. or chem. oxidn. This reaction array is a convenient route to C4, C6, and C8-atoms rigid-rod mol. wire capped at both terminals with ferrocenyl or

ruthenocenyl groups, e.g. $\text{Fc}(\text{C.tplbond.C})_3\text{Fc}$ (obtained in 95% yield from $(\text{TMSC5H}_4)_2\text{Ti}((\text{C.tplbond.C})_2\text{Fc})(\text{C.tplbond.CFc})$ using 2 equiv AgPF_6). Selected mol. structural parameters of $(\text{TMSC5H}_4)_2\text{Ti}((\text{C.tplbond.C})_2\text{Fc})_2$, detd. by x-ray crystallog., are given.

IT 196926-07-5P, Chloro(4-ferrocenyl-1,3-butadiynyl)bis(η^5 -trimethylsilyl)cyclopentadienyl)titanium
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and metatheses with ferrocenylethynyl-, ruthenocenylethynyl-, and ruthenocenylbutadiynyl-lithium compds.)

RN 196926-07-5 HCPLUS

CN Titanium, chloro(4-ferrocenyl-1,3-butadiynyl)bis[(1,2,3,4,5- η)-1-(trimethylsilyl)-2,4-cyclopentadien-1-yl]- (9CI) (CA INDEX NAME)



CC 29-13 (Organometallic and Organometalloidal Compounds)

Section cross-reference(s): 75

IT 196926-07-5P, Chloro(4-ferrocenyl-1,3-butadiynyl)bis(η^5 -trimethylsilyl)cyclopentadienyl)titanium
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and metatheses with ferrocenylethynyl-, ruthenocenylethynyl-, and ruthenocenylbutadiynyl-lithium compds.)

REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L48 ANSWER 12 OF 24 HCPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1997:783815 HCPLUS

DOCUMENT NUMBER: 128:68556

TITLE: Processless diacetylenic salt films capable of developing a black image

INVENTOR(S): Lewis, David F.; Varma, Sangya S.

PATENT ASSIGNEE(S): ISP Investments Inc., USA

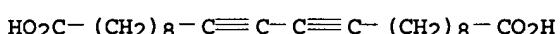
SOURCE: PCT Int. Appl., 74 pp.
 CODEN: PIXXD2

DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	-----	-----	-----	-----
WO 9744708	A1	19971127	WO 1997-US4688	199703 07
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 5731112	A	19980324	US 1996-652144	199605 23
AU 9725415	A1	19971209	AU 1997-25415	199703 07
EP 900409	A1	19990310	EP 1997-916931	199703 07
EP 900409	B1	20040811		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2000512627	T2	20000926	JP 1997-542334	199703 07
AT 273530	E	20040815	AT 1997-916931	199703 07
US 6177578	B1	20010123	US 1998-35607	199803 05
PRIORITY APPLN. INFO.:			US 1996-652144	A 199605 23
			WO 1997-US4688	W 199703 07

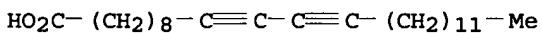
AB This invention relates to a mixt. of **imageable**
polyacetylenic compds. which have similar photosensitivities and
 which are visually **imageable** in complementary colors
 combinable to provide a black **image**, which mixt. contains
 at least one polyacetylenic metal salt which
 produces a color, preferably a **metal salt** of a
 diacetylene C6 to C48 mono- or dicarboxylic acid, which is
 complementary to a color produced by another polyacetylenic
 metal salt or non-metallic polyacetylenic compd.
 contained in the mixt. or in an another integral color forming
 layer. The invention also pertains to the use of said mixt. and the
 manner of its prepn.

IT 52892-21-4P 66990-36-1P, Lithium
 pentacosa-10,12-diynoate 200412-00-6P, Zinc
 bis(Pentacosa-10,12-diynoate) 200412-01-7P
 200412-02-8P, Zinc bis(eicosa-5,7-diynoate)
 200412-03-9P, Lithium eicosa-5,7-diynoate
 200412-04-0P, Zinc bis(octadeca-5,7-diynoate)
 200412-05-1P
 RL: PNU (Preparation, unclassified); TEM (Technical or engineered
 material use); PREP (Preparation); USES (Uses)
 (processless diacetylenic salt films capable of developing black
 image)
 RN 52892-21-4 HCAPLUS
 CN 10,12-Docosadiynedioic acid, barium salt (1:1) (9CI) (CA INDEX
 NAME)



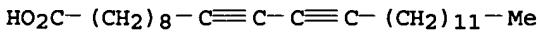
● Ba

RN 66990-36-1 HCAPLUS
 CN 10,12-Pentacosadiynoic acid, lithium salt (9CI) (CA INDEX NAME)



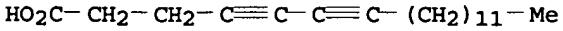
● Li

RN 200412-00-6 HCAPLUS
 CN 10,12-Pentacosadiynoic acid, zinc salt (9CI) (CA INDEX NAME)



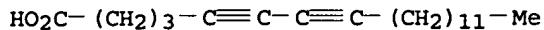
● 1/2 Zn

RN 200412-01-7 HCAPLUS
 CN 4,6-Nonadecadiynoic acid, zinc salt (9CI) (CA INDEX NAME)



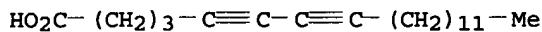
● 1/2 Zn

RN 200412-02-8 HCAPLUS
 CN 5,7-Eicosadiynoic acid, zinc salt (9CI) (CA INDEX NAME)



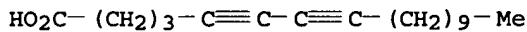
● 1/2 Zn

RN 200412-03-9 HCPLUS
 CN 5,7-Eicosadiynoic acid, lithium salt (9CI) (CA INDEX NAME)



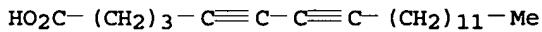
● Li

RN 200412-04-0 HCPLUS
 CN 5,7-Octadecadiynoic acid, zinc salt (9CI) (CA INDEX NAME)



● 1/2 Zn

RN 200412-05-1 HCPLUS
 CN 5,7-Eicosadiynoic acid, barium salt (9CI) (CA INDEX NAME)



● 1/2 Ba

IC ICM G03C001-735
 ICS G03C005-56; C07C057-18; C07C057-24
 CC 74-9 (Radiation Chemistry, Photochemistry, and
 Photographic and Other Reprographic Processes)
 ST diacetylenic salt film black image; thermochromism
 diacetylenic salt film
 IT Thermochromic materials
 Thermochromism
 (processless diacetylenic salt films capable of developing black
 image)
 IT 127-09-3, Sodium acetate 137-40-6, Sodium propionate 156-54-7,
 Sodium butyrate 557-28-8, Zinc propionate 557-34-6, Zinc acetate
 1984-06-1, Sodium octanoate 7446-81-3, Sodium acrylate
 7447-40-7, Potassium chloride, uses 7647-14-5, Sodium chloride,
 uses 10043-52-4, Calcium chloride, uses 10051-44-2, Sodium
 hexanoate 10099-58-8, Lanthanum chloride 14644-61-2, Zirconium
 sulfate
 RL: MOA (Modifier or additive use); USES (Uses)
 (processless diacetylenic salt films capable of developing black
 image)
 IT 5970-45-6P, Zinc acetate dihydrate 10196-18-6P, Zinc nitrate

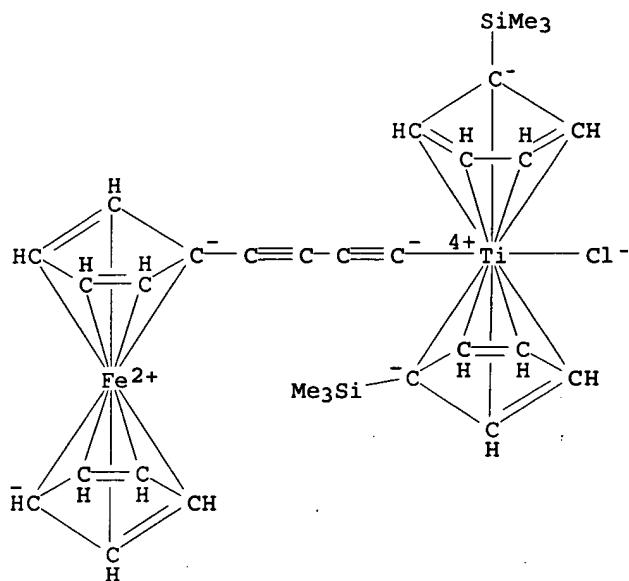
- hexahydrate
 RL: PNU (Preparation, unclassified); PREP (Preparation)
 (processless diacetylenic salt films capable of developing black
 image)
- IT 28393-02-4P, Docosa-10,12-diynoic acid 52892-21-4P
 66990-36-1P, Lithium pentacosa-10,12-diynoate
 200412-00-6P, Zinc bis(Pentacosa-10,12-diynoate)
 200412-01-7P 200412-02-8P, Zinc
 bis(eicosa-5,7-diynoate) 200412-03-9P, Lithium
 eicosa-5,7-diynoate 200412-04-0P, Zinc
 bis(octadeca-5,7-diynoate) 200412-05-1P
 RL: PNU (Preparation, unclassified); TEM (Technical or engineered
 material use); PREP (Preparation); USES (Uses)
 (processless diacetylenic salt films capable of developing black
 image)
- IT 66990-32-7, Pentacosa-10,12-diynoic acid 69288-29-5,
 Eicosa-5,7-diynoic acid 115748-07-7, Nonadeca-4,6-diynoic acid
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (processless diacetylenic salt films capable of developing black
 image)

L48 ANSWER 13 OF 24 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1997:625697 HCAPLUS
 DOCUMENT NUMBER: 127:293343
 TITLE: Reductive coupling reaction induced by
 remote-site oxidation in titanocene
 bis(metallocenylacetylides), where metallocenyl =
 ferrocenyl or ruthenocenyl: a novel route to Cn
 (n = 4, 6, and 8) wire with the metallocenyl
 groups at both terminals
 AUTHOR(S): Hayashi, Yukiko; Osawa, Masahisa; Wakatsuki,
 Yasuo
 CORPORATE SOURCE: The Institute of Physical and Chemical Research
 (RIKEN), Wako-shi, Saitama, Japan
 SOURCE: Journal of Organometallic Chemistry (1997),
 542(2), 241-246
 CODEN: JORCAI; ISSN: 0022-328X
 PUBLISHER: Elsevier
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 127:293343

AB The titanocene bis(acetylides) complexes (η^5 -C₅H₄R)₂Ti[(C.tpbond.C)_m-Mc][(C.tpbond.C)_n-Mc'] (R = H, SiMe₃; m, n = 1 or 2; Mc, Mc' = ferrocenyl or ruthenocenyl) were prep'd. and are easily oxidized with 2 equiv amt. of AgPF₆ liberating a neutral product, Mc-(C.tpbond.C)_m(C.tpbond.C)_n-Mc'. Electrochem. studies indicate that the reaction is induced by initial oxidn. of Mc and Mc' followed by unprecedented reductive coupling of the two alkynyl carbons bound to titanocene.

IT 196926-07-5P, Chloro(4-ferrocenyl-1,3-butadiynyl)bis(η^5 -trimethylsilyl)cyclopentadienyltitanium
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation);
 RACT (Reactant or reagent)
 (prepn. and reactions with lithium
 metallocenylacetylides)

RN 196926-07-5 HCAPLUS
 CN Titanium, chloro(4-ferrocenyl-1,3-butadiynyl)bis[(1,2,3,4,5- η)-1-(trimethylsilyl)-2,4-cyclopentadien-1-yl] - (9CI) (CA INDEX NAME)



CC 29-10 (Organometallic and Organometalloidal Compounds)

Section cross-reference(s): 72

IT 196926-07-5P, Chloro(4-ferrocenyl-1,3-butadiynyl)bis(η^5 -trimethylsilyl)cyclopentadienyltitanium

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation);

RACT (Reactant or reagent)

(prepn. and reactions with lithium
metallocenylacetylides)

REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

L48 ANSWER 14 OF 24 HCPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1996:212411 HCPLUS

DOCUMENT NUMBER: 124:290398

TITLE: Solid-State Polymerization Behaviors of
Crystalline Diacetylene Monolayers on
Hydrophilic Surfaces

AUTHOR(S): Kuriyama, Keisuke; Kikuchi, Hirotsugu; Kajiyama,
Tisato

CORPORATE SOURCE: Faculty of Engineering, Kyushu University,
Fukuoka, 812, Japan

SOURCE: Langmuir (1996), 12(9), 2283-8
CODEN: LANGD5; ISSN: 0743-7463

PUBLISHER: American Chemical Society

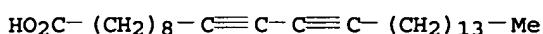
DOCUMENT TYPE: Journal

LANGUAGE: English

AB Solid-state polymn. behaviors of cryst. Li 10,12-heptacosadiynoate monolayers on the hydrophilic SiO substrate and on the water surface were investigated on the basis of the UV light irradn. time dependence of the UV-visible absorption spectrum. In the case of the cryst. monolayer on the SiO substrate, the polydiacetylene (PDA) monolayer in a blue form was formed upon UV photoirradn. For the cryst. monolayer on a water surface, the PDA monolayer in a red form was formed by the polymn. reaction. The PDA blue and red forms exhibit absorption peaks at 640 and 540 nm, resp. The 2-dimensional

(2D) mol. packings of the PDA monolayers in both forms were clarified by electron diffraction anal. for the first time. Each form had distinct 2D mol. packing relating to its electronic structure. The difference in the solid-state polymn. behaviors for the cryst. Li 10,12-heptacosadiynoate monolayers on different substrate surfaces was discussed in terms of the thermal mobility of mols. in the monolayer.

IT 76564-85-7, Lithium 10,12-heptacosadiynoate
 RL: PEP (Physical, engineering or chemical process); RCT (Reactant);
 PROC (Process); RACT (Reactant or reagent)
 (solid-state polymn. of cryst. diacetylene monolayers on
 hydrophilic surfaces)
 RN 76564-85-7 HCAPLUS
 CN 10,12-Heptacosadiynoic acid, lithium salt (9CI) (CA INDEX NAME)

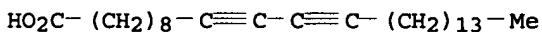


● Li

IT 76564-86-8P, Lithium 10,12-heptacosadiynoate homopolymer
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (solid-state polymn. of cryst. diacetylene monolayers on
 hydrophilic surfaces)
 RN 76564-86-8 HCAPLUS
 CN 10,12-Heptacosadiynoic acid, lithium salt, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 76564-85-7
 CMF C27 H46 O2 . Li



● Li

CC 35-4 (Chemistry of Synthetic High Polymers)
 IT 76564-85-7, Lithium 10,12-heptacosadiynoate
 RL: PEP (Physical, engineering or chemical process); RCT (Reactant);
 PROC (Process); RACT (Reactant or reagent)
 (solid-state polymn. of cryst. diacetylene monolayers on
 hydrophilic surfaces)
 IT 76564-86-8P, Lithium 10,12-heptacosadiynoate homopolymer
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (solid-state polymn. of cryst. diacetylene monolayers on
 hydrophilic surfaces)

L48 ANSWER 15 OF 24 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1996:58855 HCAPLUS
 DOCUMENT NUMBER: 124:232665
 TITLE: A titanium(III) tweezer complex with an embedded alkali metal ion between diynyl ligands:

AUTHOR(S) : [(C₅HMe₄)₂Ti(η₁-C.tplbond.CC.tplbond.CSiMe₃)₂] - [Li(THF)₂] + Varga, Vojtech; Mach, Karel; Hiller, Joerg; Thewalt, Ulf

CORPORATE SOURCE: J. Heyrovsky Institute of Physical Chemistry, Academy of Sciences of the Czech Republic, Dolejskova 3, Prague, 182 23/8, Czech.

SOURCE: Journal of Organometallic Chemistry (1996), 506(1-2), 109-12

PUBLISHER: Elsevier

DOCUMENT TYPE: Journal

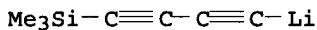
LANGUAGE: English

AB [Li(THF)₂] + [(η₅-C₅HMe₄)₂Ti(η₁-C.tplbond.CC.tplbond.CSiMe₃)₂] - (1) was obtained by the reaction of (C₅HMe₄)₂TiCl with 2 equiv of LiC.tplbond.CC.tplbond.CSiMe₃ in THF. X-ray crystal structure detn. of 1 revealed that the Li ion is embedded between the inner triple bonds of the 4-trimethylsilyl-1,3-butadiynyl tweezer arms. The EPR spectrum of 1 shows a single line, ΔH = 2.5 G at g = 1.9940 (±0.0003), and coupling to 49Ti and 47Ti isotopes a (Ti) = 7.5 G.

IT 73084-25-0, ((Trimethylsilyl)butadiynyl)lithium
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction with titanium chloro cyclopentadienyl complex)

RN 73084-25-0 HCPLUS

CN Lithium, [4-(trimethylsilyl)-1,3-butadiynyl] - (9CI) (CA INDEX NAME)



CC 29-10 (Organometallic and Organometalloidal Compounds)
Section cross-reference(s): 75

IT 73084-25-0, ((Trimethylsilyl)butadiynyl)lithium
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction with titanium chloro cyclopentadienyl complex)

L48 ANSWER 16 OF 24 HCPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1995:845315 HCPLUS

DOCUMENT NUMBER: 123:229046

TITLE: Molecular aggregation state-photopolymerization behavior relationship of lithium 10,12-heptacosadiynoate monolayer

AUTHOR(S) : Kuriyama, Keisuke; Kikuchi, Hirotugu; Oishi, Yushi; Kajiyama, Tisato

CORPORATE SOURCE: Fac. Eng., Kyushu Univ., Fukuoka, 812, Japan

SOURCE: Langmuir (1995), 11(9), 3536-41

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The temp. effect on the polymn. of lithium 10,12-heptacosadiynoate monolayer with relation to its aggregation structure was studied. A mol. aggregation state of the monolayer on the water surface was investigated on the basis of the subphase temp. (T_{sp}) dependences of the elastic modulus and the electron diffraction pattern of the monolayer. The monolayer on the water surface was classified into a molten monolayer, a cryst. one and a glassy one, depending on T_{sp} in comparison with the melting temp. of the monolayer on the water surface. The photopolymn. behaviors of the monolayers in various aggregation states were also investigated by the UV light irradn. time dependences of UV-visible absorption spectrum. The

photopolymn. was less reactive in the case of the monolayer in a molten state. On the other hand, the poly(diacetylene) (PDA) blue form monolayer, which had an absorption peak at 640 nm, was formed upon photoirradn. to the cryst. monolayer. Moreover, in the case of the glassy monolayer, PDA red form monolayer, which had an absorption peak at 540 nm, was found to be formed by UV light irradn. The delocalization length of a π -electron in the PDA red form would be shorter than that in the PDA blue form, as suggested by the wavelength of the main absorption peak corresponding to $\pi-\pi^*$ transition. The difference in the delocalization length of the π -electron between the PDA blue form and the PDA red form could be explained by the lattice strain on conjugated PDA main chains caused during the polymn. reaction.

IT 76564-86-8P, 10,12-Heptacosadiynoic acid, lithium salt, homopolymer

RL: SPN (Synthetic preparation); PREP (Preparation)
(mol. aggregation state-photopolymn. behavior relationship of lithium 10,12-heptacosadiynoate monolayer)

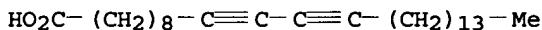
RN 76564-86-8 HCPLUS

CN 10,12-Heptacosadiynoic acid, lithium salt, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 76564-85-7

CMF C27 H46 O2 . Li



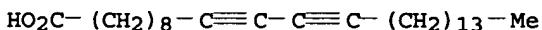
● Li

IT 76564-85-7, 10,12-Heptacosadiynoic acid, lithium salt

RL: PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)
(monolayer; mol. aggregation state-photopolymn. behavior relationship of lithium 10,12-heptacosadiynoate monolayer)

RN 76564-85-7 HCPLUS

CN 10,12-Heptacosadiynoic acid, lithium salt (9CI) (CA INDEX NAME)



● Li

CC 35-3 (Chemistry of Synthetic High Polymers)

IT 76564-86-8P, 10,12-Heptacosadiynoic acid, lithium salt, homopolymer

RL: SPN (Synthetic preparation); PREP (Preparation)
(mol. aggregation state-photopolymn. behavior relationship of lithium 10,12-heptacosadiynoate monolayer)

IT 76564-85-7, 10,12-Heptacosadiynoic acid, lithium salt

RL: PEP (Physical, engineering or chemical process); RCT (Reactant);

PROC (Process); RACT (Reactant or reagent)
 (monolayer; mol. aggregation state-photopolymn. behavior
 relationship of lithium 10,12-heptacosadiynoate
 monolayer)

L48 ANSWER 17 OF 24 HCPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1995:684260 HCPLUS
 DOCUMENT NUMBER: 123:286893
 TITLE: Structural analyses of lithium heptacosadiynoate monolayer on the water surface and its importance for photopolymerization behaviors of monolayer
 AUTHOR(S): Kuriyama, K.; Kajiyama, T.
 CORPORATE SOURCE: Faculty Engineering, Kyushu University, Higashi, 812, Japan
 SOURCE: Transactions of the Materials Research Society of Japan (1994), 15A(Biomaterials, Organic and Intelligent Materials), 571-4
 CODEN: TMRJE3; ISSN: 1382-3469
 PUBLISHER: Elsevier
 DOCUMENT TYPE: Journal
 LANGUAGE: English

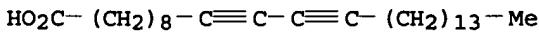
AB The melting temp., T_m of lithium heptacosadiynoate monolayer on the water surface was evaluated to be 300 K from the subphase temp., T_{sp} dependences of both the modulus and electron diffraction, ED pattern of the monolayer. The aggregation structure of the monolayer during a compressing process at T_{sp} below and above T_m was investigated by the bright field electron micrograph and the ED pattern. The monolayer on the water surface was classified into a cryst. monolayer and an amorphous one depending on the T_{sp} s below and above T_m of the monolayer, resp. Photopolymn. behaviors of the monolayers at T_{sp} below and above T_m were investigated on the basis of the UV irradn. time dependence of UV-visible absorption spectrum. Polydiacetylene(PDA) monolayer with remarkable cryst. quality was obtained only by the photopolymn. of the cryst. monolayer.

IT 76564-86-8P
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
 (monolayer; structure of lithium heptacosadiynoate monolayer on the water surface in relation to photopolymn. behaviors of the monolayer)

RN 76564-86-8 HCPLUS
 CN 10,12-Heptacosadiynoic acid, lithium salt, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 76564-85-7
 CMF C27 H46 O2 . Li



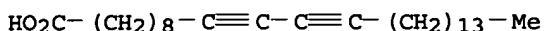
● Li

IT 76564-85-7
 RL: PRP (Properties); RCT (Reactant); RACT (Reactant or reagent)
 (structure of lithium heptacosadiynoate monolayer on the water surface in relation to photopolymn. behaviors of the

monolayer)

RN 76564-85-7 HCPLUS

CN 10,12-Heptacosadiynoic acid, lithium salt (9CI) (CA INDEX NAME)



● Li

CC 35-4 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 66

IT 76564-86-8P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)

(monolayer; structure of lithium heptacosadiynoate monolayer on the water surface in relation to photopolymn. behaviors of the monolayer)

IT 76564-85-7

RL: PRP (Properties); RCT (Reactant); RACT (Reactant or reagent) (structure of lithium heptacosadiynoate monolayer on the water surface in relation to photopolymn. behaviors of the monolayer)

L48 ANSWER 18 OF 24 HCPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1994:410668 HCPLUS

DOCUMENT NUMBER: 121:10668

TITLE: Nonlinear optical thin films of platinum

polyyne

AUTHOR(S): Porter, Pamela; Guha, Shekhar; Kang, Keith; Frazier, Claude C.

CORPORATE SOURCE: Marin Marietta Lab., Baltimore, MD, 21227, USA

SOURCE: Contemporary Topics in Polymer Science (1992), 7(Advances in New Materials), 293-8

CODEN: CTPSDH; ISSN: 0160-6727

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The imaginary part of the third-order hyperpolarizability was measured for a series of platinum polyynes (polydiacetylene) in both soln. and thin-film form, and for a group of related platinum-org. species.

IT 73575-25-4 119989-43-4 123849-66-1

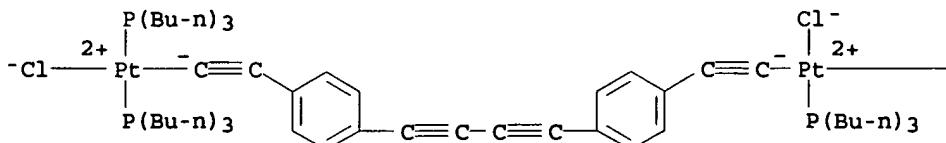
155761-81-2 155761-83-4

RL: PRP (Properties)
(third-order hyperpolarizability of thin films of, imaginary part of)

RN 73575-25-4 HCPLUS

CN Platinum, [μ-[1,3-butadiyne-1,4-diylbis(4,1-phenylene-2,1-ethynediyl)]dichlorotetrakis(tributylphosphine)di- (9CI) (CA INDEX NAME)

PAGE 1-A



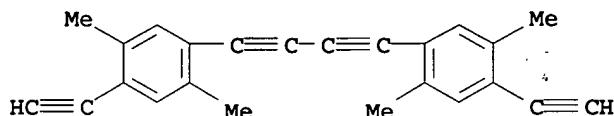
PAGE 1-B

— P(Bu-n)3

RN 119989-43-4 HCAPLUS
 CN Platinum, dichlorobis(tributylphosphine)-, (SP-4-1)-, polymer with
 1,1'-(1,3-butadiyne-1,4-diyl)bis[4-ethynyl-2,5-dimethylbenzene]
 (9CI) (CA INDEX NAME)

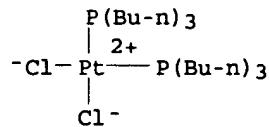
CM 1

CRN 119989-42-3
 CMF C24 H18



CM 2

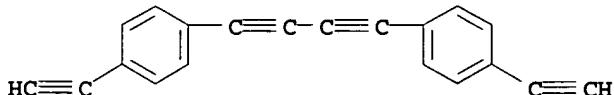
CRN 15391-01-2
 CMF C24 H54 Cl2 P2 Pt
 CCI CCS



RN 123849-66-1 HCAPLUS
 CN Platinum, dichlorobis(tributylphosphine)-, (SP-4-1)-, polymer with
 1,1'-(1,3-butadiyne-1,4-diyl)bis[4-ethynylbenzene] (9CI) (CA INDEX
 NAME)

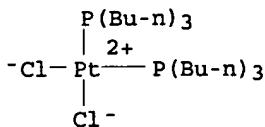
CM 1

CRN 124417-94-3
 CMF C20 H10



CM 2

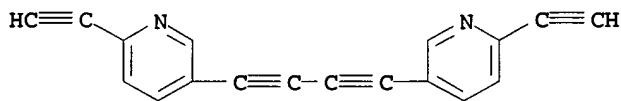
CRN 15391-01-2
 CMF C24 H54 Cl2 P2 Pt
 CCI CCS



RN 155761-81-2 HCPLUS
 CN Platinum, dichlorobis(tributylphosphine)-, (SP-4-1)-, polymer with
 3,3'-(1,3-butadiyne-1,4-diyl)bis[6-ethynylpyridine] (9CI) (CA INDEX
 NAME)

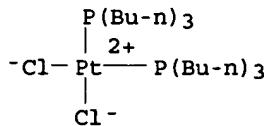
CM 1

CRN 155761-80-1
 CMF C18 H8 N2



CM 2

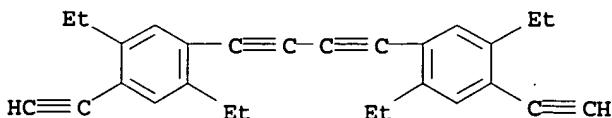
CRN 15391-01-2
 CMF C24 H54 Cl2 P2 Pt
 CCI CCS



RN 155761-83-4 HCPLUS
 CN Platinum, dichlorobis(tributylphosphine)-, (SP-4-1)-, polymer with
 1,1'-(1,3-butadiyne-1,4-diyl)bis[2,5-diethyl-4-ethynylbenzene] (9CI)
 (CA INDEX NAME)

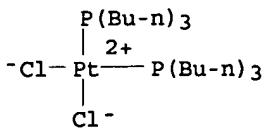
CM 1

CRN 155761-82-3
 CMF C28 H26



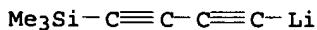
CM 2

CRN 15391-01-2
 CMF C24 H54 Cl2 P2 Pt
 CCI CCS



CC 37-5 (Plastics Manufacture and Processing)
 Section cross-reference(s): 38, 73
 IT 73575-25-4 119989-43-4 123849-66-1
 137000-68-1 137000-86-3 155761-81-2 155761-83-4
 RL: PRP (Properties)
 (third-order hyperpolarizability of thin films of,
 imaginary part of)

L48 ANSWER 19 OF 24 HCPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1991:142768 HCPLUS
 DOCUMENT NUMBER: 114:142768
 TITLE: Diastereoselective heteroconjugate addition
 using phenylthioacetylene
 AUTHOR(S): Herunsalee, Angkana; Isobe, Minoru; Fukuda,
 Yoshio; Goto, Toshio
 CORPORATE SOURCE: Sch. Agric., Nagoya Univ., Nagoya, 464, Japan
 SOURCE: Synlett (1990), (11), 701-3
 CODEN: SYNLES; ISSN: 0936-5214
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 114:142768
 AB Phenylthioacetylene, as its lithium acetylidyde, was used for the
 opening of epoxides to afford 1-phenylthio-1-alkyn-4-ols.
 Hydrosilylation of the acetylene moiety was followed by oxidn. of
 sulfur to give the corresponding 4-hydroxy-1-silyl-1-alkenyl
 sulfones, which act as the electrophile in heteroconjugate addn.
 Very high stereoselectivity is shown in the addn. The
 stereocontrolled processes are discussed.
 IT 73084-25-0, (4-Trimethylsilyl-1,3-butadiynyl)lithium
 RL: PROC (Process)
 (heteroconjugate addn. of, to (hydroxycyclopentyl)vinyl sulfone
 deriv.)
 RN 73084-25-0 HCPLUS
 CN Lithium, [4-(trimethylsilyl)-1,3-butadiynyl]- (9CI) (CA INDEX NAME)



CC 25-7 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
 Section cross-reference(s): 27
 IT 73084-25-0, (4-Trimethylsilyl-1,3-butadiynyl)lithium
 132556-16-2
 RL: PROC (Process)
 (heteroconjugate addn. of, to (hydroxycyclopentyl)vinyl sulfone
 deriv.)

L48 ANSWER 20 OF 24 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1988:177225 HCAPLUS
 DOCUMENT NUMBER: 108:177225
 TITLE: Patterning with built-up monomolecular films
 INVENTOR(S): Tomita, Yoshinori; Sakai, Kunihiro; Matsuda, Hiroshi; Kawada, Harunori; Eguchi, Takeshi; Kimura, Noriaki
 PATENT ASSIGNEE(S): Canon K. K., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 3
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 62229246	A2	19871008	JP 1986-73111	198603 31
US 4798740	A	19890117	US 1987-30364	198703 26
PRIORITY APPLN. INFO.:			JP 1986-73111	A 198603 31
			JP 1986-73112	A 198603 31
			JP 1986-77023	A 198604 03

AB Patterning is effected by (1) depositing a polymerizable thin film, consisting of a transition metal and a polymerizable compd. and capable of yielding solvent-sol.- and solvent-insol.-states, and (2) exposing to energy beams (heat, near-UV, far-UV, electron beams, soft x-rays, x-rays) to form solvent-sol. and solvent-insol. regions in the shape of the desired pattern(s). The polymerizable compd. is RC:CC:C(R1)nX (R, R1 = hydrophobic group; X = hydrophilic group; n = 0, 1). Thus, a CHCl₃ soln. of C₁₂H₂₅C:CC:CC₇H₁₄CO₂H (I) was spread on an aq. MnCl₂ soln. After evapn. of the CHCl₃, a n-Si:Sb substrate was dipped in the soln. while controlling the surface tension of the I monomol. film. After depositing 15 layers of the monomol. film, the dried film was patternwise scanned with electron beams of 0.4 and 8 μC/m² and developed with EtOH. High contrast images were obtained with a resoln. of 0.2 μ.

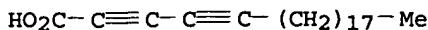
IT 85233-94-9

RL: USES (Uses)

(monomol. films of, resist and coating materials from)

RN 85233-94-9 HCAPLUS

CN 2,4-Tricosadiynoic acid, manganese(2+) salt (9CI) (CA INDEX NAME)



● 1/2 Mn(II)

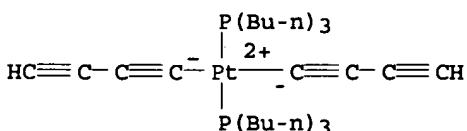
IC ICM G03C005-08
 ICS G03C001-00; G03C001-68; G03C001-74; G03F007-00; G03F007-16
 CC 74-5 (Radiation Chemistry, Photochemistry, and
 Photographic and Other Reprographic Processes)
 Section cross-reference(s): 76
 IT 85233-94-9 86936-74-5 113982-41-5
 RL: USES (Uses)
 (monomol. films of, resist and coating materials from)

L48 ANSWER 21 OF 24 HCPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1985:446329 HCPLUS
 DOCUMENT NUMBER: 103:46329
 TITLE: New series of liquid-crystalline
 materials containing metal atoms
 AUTHOR(S): Takahashi, Shigetoshi
 CORPORATE SOURCE: Inst. Sci. Ind. Res., Osaka Univ., Osaka, 567,
 Japan
 SOURCE: Memoirs of the Institute of Scientific and
 Industrial Research, Osaka University (1985),
 42, 1-11
 CODEN: MISIAW; ISSN: 0369-0369

DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB Transition metal-poly(yne) polymers were synthesized from
 polycondensation with an appropriate combination of the metal halide
 and acetylenic compd. or acetylide complex. The polymers are the
 first lyotropic liq. crystal materials which form nematic
 liq. crystals in concd. trichloroethylene solns. In
 addn., a new series of thermotropic liq.-cryst. materials
 contg. a B atom in the principal structure, the dioxaborinane
 derivs., was prep'd. by a method including a new Pd-catalyzed
 coupling reaction. They form stable mesomorphic phases in a wide
 range of temp.

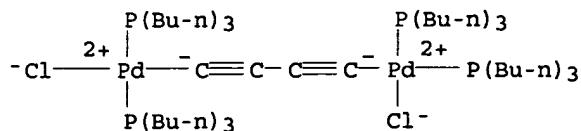
IT 64396-21-0
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with dichlorobis(tributylphosphine)palladium, in
 liq. crystal phase formation)

RN 64396-21-0 HCPLUS
 CN Platinum, di-1,3-butadiynylbis(tributylphosphine)-, (SP-4-1)- (9CI)
 (CA INDEX NAME)



IT 69468-31-1
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with diethynylbenzene)
 RN 69468-31-1 HCPLUS
 CN Palladium, μ-1,3-butadiyne-1,4-diyl dichlorotetrakis(tributylphosp

hine)di-, stereoisomer (9CI) (CA INDEX NAME)



- CC 75-11 (Crystallography and Liquid Crystals)
 Section cross-reference(s): 74
- ST transition metal polyyne liq crystal; platinum polyyne liq crystal; palladium polyyne liq crystal; nickel polyyne liq crystal
- IT Liquid crystals
 (palladium, platinum and nickel-contg., polyyne, prepn. of)
- IT Liquid crystals
 (polyyne series, contg. palladium, platinum and nickel)
- IT 7440-02-0, properties 7440-05-3, properties 7440-06-4,
 properties
 RL: PRP (Properties)
 (liq. crystal polyyne phase contg.)
- IT 69476-83-1P 80347-22-4P 81833-14-9P 89636-24-8P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (liq. crystals, prepn. and phase transition of)
- IT 64396-21-0 75867-45-7
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with dichlorobis(tributylphosphine)palladium, in
 liq. crystal phase formation)
- IT 69468-31-1
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with diethynylbenzene)

L48 ANSWER 22 OF 24 HCPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1983:143919 HCPLUS
 DOCUMENT NUMBER: 98:143919
 TITLE: Solid state polymerization and optical
 properties of diacetylene Langmuir-Blodgett
 multilayers
 AUTHOR(S): Kajzar, F.; Messier, J.
 CORPORATE SOURCE: Dep. Electron. Instrum. Nucl., Cent. Etud. Nucl.
 Saclay, Gif-sur-Yvette, 91191, Fr.
 SOURCE: Thin Solid Films (1983), 99(1-3), 109-16
 CODEN: THSFAP; ISSN: 0040-6090
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB Polymn. of Langmuir-Blodgett multilayers of
 $\text{C}_{18}\text{H}_{37}\text{C.tpbond.CC.tpbond.CCO}_2\text{H}$ and its salts with NH_4^+ , $\text{Ag}^{(\text{I})}$, Na^+ ,
 Cd^{2+} , Cu^{2+} , Hg^{2+} , and Mn^{2+} is discussed. The acid and monovalent salts
 (except Na^+) polymd. in the solid phase, while divalent metal
 salts polymd. or decarboxylated, except Cu^{2+} which
 decarboxylated and polymd. The optical spectra of the polymers
 depended on the ions present. For I^- and the NH_4^+ salt, blue form of
 the polymer with an absorption peak at .apprx.6250 Å (shifting
 to smaller wavelengths with increasing polymer content) was obsd.,
 as in polymers with internal diyne groups. For I^- Ag^+ salt, the
 absorption peak was shifted to longer wavelengths (.apprx.6700
 Å). The extent of polymn. of I^- and the NH_4^+ and Ag^+ salts was
 .apprx.50%. For I^- Cu^{2+} salt, the absorption peak for the
 decarboxylated form was .apprx.4350 Å and for the polymer [
 84975-44-0] was .apprx.7100 Å. The 3rd-order nonlinear

susceptibility of the I.NH₄⁺ polymer [84992-79-0] was close to that
 detd. for a polymer with an internal diyne group.
 CC 35-4 (Chemistry of Synthetic High Polymers)
 Section cross-reference(s): 36

L48 ANSWER 23 OF 24 HCPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1974:444150 HCPLUS

DOCUMENT NUMBER: 81:44150

TITLE: Sensitized compounds and elements

INVENTOR(S): Ehrlich, Sanford H.

PATENT ASSIGNEE(S): Eastman Kodak Co.

SOURCE: U.S., 8 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 3811895	A	19740521	US 1972-217979	197201 14
PRIORITY APPLN. INFO.:			US 1972-217979	A 197201 14

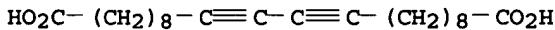
AB The sensitivity of radiation-sensitive polyyne compds. is extended into the x-ray region by the use of organometallic sensitizers, such as triphenylbismuthine (I) and hexaphenyldilead (II). Thus, a compn. contg. the monomethyl ester of 10,12-docosadiynedioic acid 0.3, I 0.6, polystyrene 2.1 g, and PhMe 25 ml was coated on a poly(ethylene terephthalate) support to give a 30-μ thick layer (dry) and exposed to a direct x-ray source (50 kV, 40 mA, at 3-in.). A printout image d. of 0.43 was obtained vs. 0.02 for a I-free control.

IT 52892-21-4

RL: PRP (Properties)
 (sensitization of, to x-rays, by hexaphenyldilead)

RN 52892-21-4 HCPLUS

CN 10,12-Docosadiynedioic acid, barium salt (1:1) (9CI) (CA INDEX NAME)



● Ba

IC G03C

INCL 096088000

CC 74-8 (Radiation Chemistry, Photochemistry, and Photographic Processes)

IT 52892-21-4

RL: PRP (Properties)
 (sensitization of, to x-rays, by hexaphenyldilead)

L48 ANSWER 24 OF 24 HCPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1969:426550 HCPLUS

DOCUMENT NUMBER: 71:26550
 TITLE: Photographic material and a process for the formation of an image using that material
 INVENTOR(S): Cremeans, George E.; Foltz, Rodger L.; Trent, Donald E.
 PATENT ASSIGNEE(S): Battelle Development Corp.
 SOURCE: Fr., 26 pp.
 CODEN: FRXXAK
 DOCUMENT TYPE: Patent
 LANGUAGE: French
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 1525738		19680517	FR	
DE 1547651			DE	
GB 1154191			GB	
US 3501297		19700317	US	196606 06
US 3501302		19700317	US	196606 06
US 3501303		19700317	US	196606 06
US 3679738		19720725	US	197003 16
PRIORITY APPLN. INFO.:			US	196606 06

AB A photosensitive system for receiving an image consists of photosensitive crystals of a photosensitive cryst polyacetylene compd. held in a fixed position on a support. Visible images are formed directly by exposing the crystals to radiant energy so as to obtain a visible change in color in the irradiated portions of the crystal. The cryst. polyacetylene compd. is a lower alc. ester of a dicarboxylic diacetylene compd. in which the carboxy groups are at each end of the mol. The support bears a layer endowed with a good capability for the transmission of radiant energy which initiates a photosensitive response in the photosensitive crystals. The procedure for the direct formation of visible printed images consists in exposing the crystals to the action of radiant energy depending on the image to be formed, so as to obtain the initiation of a visible color change in the irradiated portions of the crystals. An image is formed at least in part by the portions of the crystals having had their color changed. The preferred esters and salts of polyacetylene compds. terminating in dicarboxylic groups have the structural formula; HO₂C(CH₂)_{m1}(C.tplbond.C)_n(CH₂)_{m2}CO₂H, in which n is a whole no. = 2, m₁ and m₂ are whole nos., preferably 6-9. The preferred compds. include: the dimethyl and diethyl esters of tetracosadiyne-11,13-dioic acid (I); dibenzyl ester of docosadiyne-10,12-dioic acid, dimethyl ester of hexadeca-7,9-dioic acid, etc. Thus, a small amt. of I contg. .apprx.20-30% of the monoethyl ester of I is dissolved in alc. The soln. is poured into

aq. poly(vinyl alc.) with vigorous stirring. A suspension of finely divided **crystals** is obtained in the aq. poly(vinyl alc.).

When the suspension is spread onto the surface of a base or substrate, such as a sheet of white paper, and dried by mild heating, so as to evap. the H₂O and alc., a system consisting of a layer on the paper substrate, in which there is a layer of binder contg. colorless **crystals** of the diacid diyne results.

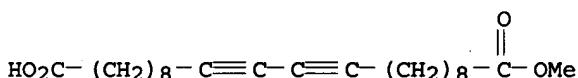
When the system is exposed to uv rays of $\lambda = 2537\text{A}$. the irradiated diacid diyne takes on a deep blue to purple color, and after a prolonged exposure takes on a bronze color which appears stable in the absence of an addnl. exposure to uv radiation at <50°. If the exposed material is heated above 120°, the blue-bronze product changes to a red color.

IT 24643-44-5 24643-45-6

RL: USES (Uses)
(photosensitive compns. contg.)

RN 24643-44-5 HCPLUS

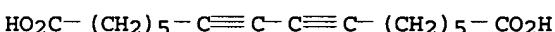
CN 10,12-Docosadiynedioic acid, monomethyl ester, potassium salt (8CI).
(CA INDEX NAME)



● K

RN 24643-45-6 HCPLUS

CN 7,9-Hexadecadiynedioic acid, dipotassium salt (8CI) (CA INDEX NAME)



●2 K

IC G03C

CC 74 (Radiation Chemistry, Photochemistry, and Photographic Processes)

IT 4161-51-7 24567-40-6 24567-41-7 24567-42-8 24574-07-0

24643-40-1 24643-41-2 24643-44-5 24643-45-6

24643-46-7 24643-49-0 24643-50-3 24643-51-4 24643-52-5

24643-53-6 24643-54-7 24643-55-8 24698-91-7 26345-37-9

RL: USES (Uses)

(photosensitive compns. contg.)

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